



**Pest Situation of Sugarcane
Crop in Punjab
(1ST – 15TH October 2020)**

**Directorate General
Pest Warning & Quality Control of
Pesticides Punjab, Lahore**

FORTNIGHTLY PEST SCOUTING AND FORECAST REPORT OF SUGARCANE CROP FOR THE 1ST FORTNIGHT OF OCTOBER 2020

Pest Situation of Cotton Pests								
Sr. No.	Pest Name	%age of spots						Remarks
		Current Week		Previous week		Corresponding week of Last Year		
		AETL	BETL	AETL	BETL	AETL	BETL	
1	BORER	0.44	13.55	0.62	23.52	1.92	15.07	Decreasing
2	PYRILLA	0.62	10.27	0.08	12.95	0.38	10.84	Increasing
3	WHITEFLY	4.43	25.86	4.32	28.37	0.96	19.29	Sustaining
4	BLACK BUG	0.00	5.58	0.00	6.25	0.00	2.98	Low
5	MITES	0.00	0.44	0.00	0.62	0.00	0.10	Low
6	TOKA	0.27	12.93	0.46	12.49	0.10	6.81	Decreasing
7	MEALY BUG	0.44	-	0.46	-	0.10	-	Sustaining
8	RED ROT	8.41	-	8.02	-	5.66	-	Sustaining
9	WHIP SMUT	1.15	-	1.08	-	0.38	-	Sustaining
10	MOSAIC VIRUS	0.09	-	0.00	-	0.00	-	Low
11	RUST	0.09	-	0.00	-	0.48	-	Low

METEOROLOGICAL DATA OF THE FORTNIGHT

Districts	2020				2019			
	Temperature		R.H%	Rainfall (mm)	Temperature		RH%	Rainfall (mm)
	Max.	Min.			Max.	Min.		
Multan	35.10	20.90	68.60	0.00	31.60	23.17	80.25	28.30
Khanewal	35.80	21.00	61.90	0.00	32.60	23.07	77.29	7.00
Vehari	34.30	21.70	68.60	0.00	31.60	23.96	75.44	18.00
Lodhran	36.10	22.20	62.10	0.00	32.30	23.29	75.89	17.00
Sahiwal	35.00	20.00	64.00	0.00	36.00	22.00	62.00	0.00
Pakpattan	35.00	22.00	53.86	0.00	36.40	23.00	54.00	0.00
Okara	36.21	23.70	76.25	0.00	35.34	24.78	75.45	0.00
B.Pur	37.04	21.93	49.78	0.00	33.35	21.68	68.19	5.56
B.Nagar	37.96	20.96	51.96	0.00	32.83	21.71	62.38	0.33
R.Y.Khan	36.67	23.50	47.33	0.00	35.83	22.00	80.33	0.00
D.G Khan	37.14	23.14	58.50	0.00	35.29	23.36	56.43	27.00
M. Garh	36.48	22.22	50.64	0.00	33.07	24.28	34.71	0.00
Rajanpur	40.40	22.30	61.30	0.00	36.80	20.10	62.75	0.00
Layyah	34.64	20.71	51.50	0.00	32.42	19.99	69.85	52.00
TOT/AVG	36.27	21.88	59.02	0.00	33.96	22.60	66.78	155.19

Weather forecast for Next 15 Days

Division	Dated	15/10	16/10	17/10	18/10	19/10	20/10	21/10	22/10	23/10	24/10	25/10	26/10	27/10	28/10	29/10
Multan	Max.Temp.	36	36	36	35	35	36	33	33	33	33	33	33	33	33	33
	Min.Temp.	20	19	20	18	18	17	20	19	19	19	19	19	19	19	20
	Humidity %	21	16	15	14	14	10	5	6	6	5	5	4	4	4	10
Sahiwal	Max.Temp.	35	35	35	35	35	36	32	32	32	33	33	33	33	33	33
	Min.Temp.	17	17	18	17	17	17	21	20	20	19	19	19	19	20	20
	Humidity %	21	21	17	17	16	13	6	7	7	8	6	5	4	4	9
B.pur	Max.Temp.	36	36	36	36	36	35	37	35	34	35	34	34	34	34	34
	Min.Temp.	20	19	19	18	17	16	18	16	16	16	16	16	16	16	16
	Humidity %	22	17	16	16	16	13	6	7	6	6	5	4	4	8	13
D.G.Khan	Max.Temp.	37	37	37	37	36	36	33	33	33	33	33	33	33	33	33
	Min.Temp.	19	19	19	18	16	15	20	19	19	19	19	19	19	19	19
	Humidity %	17	16	14	12	12	8	6	7	6	6	5	5	4	5	10
Average Cotton Zone	Max.Temp.	34.32														
	Min.Temp.	18.30														
	Humidity %	9.87														

FORECAST FOR THE NEXT FORTNIGHT

BORERS

This pest flourish best at optimum temperature 35-41°C with relative humidity below 65-70%. The current weather conditions on overall South Punjab basis is as; maximum temperature **36.27** °C, minimum **21.88** °C with R. humidity **59.02**. Weather forecast for the next fifteen days is as; maximum temperature **34.32** °C, minimum **18.30** °C with R. humidity **9.87**. It is predicted that the population of this pest will decrease during the next fortnight.

PYRILLA

This pest flourish best at optimum temperature 29-40°C with relative humidity 75-84%. The current weather conditions on overall South Punjab basis is as; maximum temperature **36.27** °C, minimum **21.88** °C with R. humidity **59.02**. Weather forecast for the next fifteen days is as; maximum temperature **34.32** °C, minimum **18.30** °C with R.

humidity **9.87**. It is predicted that the population of this pest will increase during the next fortnight.

WHITEFLY

This pest flourish best at optimum temperature 29-40C with relative humidity 75-84%. The current weather conditions on overall South Punjab basis is as; maximum temperature **36.27** C°, minimum **21.88** C° with R. humidity **59.02**. Weather forecast for the next fifteen days is as; maximum temperature **34.32** C°, minimum **18.30** C° with R. humidity **9.87**. It is predicted that the population of this pest will decrease during the next fortnight.

BLACK BUG

This pest flourish best at optimum temperature 22.9-40.9C with relative R. humidity 46%. The current weather conditions on overall South Punjab basis is as; maximum temperature **36.27** C°, minimum **21.88** C° with R. humidity **59.02**. Weather forecast for the next fifteen days is as; maximum temperature **34.32** C°, minimum **18.30** C° with R. humidity **9.87**. It is predicted that the population of this pest will decrease during the next fortnight.

TOKA

The optimal temperature and RH conditions for the feeding activities are 28.5-33C and 60-70 C° % respectively. The current weather conditions on overall South Punjab basis is as; maximum temperature **36.27** C°, minimum **21.88** C° with R. humidity **59.02**. Weather forecast for the next fifteen days is as; maximum temperature **34.32** C°, minimum **18.30** C° with R. humidity **9.87**. It is predicted that the population of this pest may decrease during the next fortnight.

MEALY BUG

This pest flourish best at optimum temperature 29-40C with relative humidity 75-84%. The current weather conditions on overall South Punjab basis is as; maximum temperature **36.27** C°, minimum **21.88** C° with R. humidity **59.02**. Weather forecast for the next fifteen days is as; maximum temperature **34.32** C°, minimum **18.30** C° with R. humidity **9.87**. It is predicted that the population of this pest will decrease during the next fortnight.

TERMITES

The optimal temperature and RH conditions for the feeding activities are 35°-40C and 70-80% respectively. The current weather conditions on overall South Punjab basis is as; maximum temperature **36.27** C°, minimum **21.88** C° with R. humidity **59.02**. Weather forecast for the next fifteen days is as; maximum temperature **34.32** C°, minimum **18.30** C° with R. humidity **9.87**. It is predicted that the population of this pest will may sustain as such during the next fortnight.

MITES

The optimal temperature and RH conditions for the feeding activities are 30°-36C and 20-40% respectively. The current weather conditions on overall South Punjab basis is as; maximum temperature **36.27** C°, minimum **21.88** C° with R. humidity **59.02**. Weather forecast for the next fifteen days is as; maximum temperature **34.32** C°, minimum **18.30** C° with R. humidity **9.87**. It is predicted that the population of this pest will decrease during the next fortnight.

RUST

This disease flourish best at optimum temperature 12-14C with relative humidity below 80-85%. The current weather conditions on overall South Punjab basis is as; maximum temperature **36.27** C°, minimum **21.88** C° with R. humidity **59.02**. Weather forecast for the next fifteen days is as; maximum temperature **34.32** C°, minimum **18.30** C° with R. humidity **9.87**. It is predicted that the present climatic conditions may be favorable for the decrease of this disease in the coming fortnight.

RED ROT

This disease flourish best at optimum temperature 25.5-26.5C with relative humidity 60%. The current weather conditions on overall South Punjab basis is as; maximum temperature **36.27** C°, minimum **21.88** C° with R. humidity **59.02**. Weather forecast for the next fifteen days is as; maximum temperature **34.32** C°, minimum **18.30** C° with R. humidity **9.87**. It is predicted that the incidence of this disease may decrease in the coming fortnight.

WHIP SMUT

This disease flourish best at optimum temperature 14-35C with relative humidity 55-80%. The current weather conditions on overall South Punjab basis is as; maximum temperature

36.27 C°, minimum **21.88** C° with R. humidity **59.02**. Weather forecast for the next fifteen days is as; maximum temperature **34.32** C°, minimum **18.30** C° with R. humidity **9.87**. It is predicted that incidence is expected to decrease during the next fortnight.

MOSAIC VIRUS

This disease flourish best at optimum temperature 14-35C with relative humidity 55-80%. The current weather conditions on overall South Punjab basis is as; maximum temperature **36.27** C°, minimum **21.88** C° with R. humidity **59.02**. Weather forecast for the next fifteen days is as; maximum temperature **34.32** C°, minimum **18.30** C° with R. humidity **9.87**. Incidence of this disease is not expected during the coming fortnight.

RECOMMENDATIONS

BORERS MANAGEMENT

- ❖ Install cards of egg parasitoid (*Trichogramma*) from the start of crop till 15th Oct.
- ❖ Apply granular insecticide carbofuron 3G@ 12-14 kg/acre to the fields where infestation of sugarcane borers observed above ETL.

PYRILLA MANAGEMENT

- ❖ Promote parasitic insects (*Tetrastichus pyrillae*) against eggs of pyrilla and (*Epiricania melanoleuca*) against nymphs and adults of pyrilla.
- ❖ Cut the leaves 6 inch in length from those fields having parasite eggs and pupae in abundance and shift/hang them in fields where parasites are not found.
- ❖ Apply Granular insecticide Carbofuron 3G@ 12-14 kg/acre to the fields where infestation of sugarcane Pyrilla reaches ETL and parasites are not found. Application of granules may be done till the 6 feet height of crop.

WHITEFLY MANAGEMENT

- ❖ Cut severely infested leaves of whitefly and remove from the field.
- ❖ Install cards of beneficial insects i.e *Chrysoperla carnea*

BLACK BUG MANAGEMENT

- ❖ Avoid the cane fields from water stress.
- ❖ Apply granular insecticide carbofuron 3G@ 12-14 kg/acre

TOKA MANAGEMENT

- ❖ For the management of Toka, eradicate the weeds along with water channels and field boundaries.

- ❖ In case its population exceeds ETL, dusting should be made with suitable insecticides around field bunds of Sugarcane.

RUST MANAGEMENT

- ❖ Cultivate resistant varieties.
- ❖ Cut the diseased plants/ Plant parts and remove from the field.

RED ROT MANAGEMENT

- ❖ Select the seed for cultivation from diseased free crop.
- ❖ Cultivate resistant varieties.
- ❖ Cut and remove the diseased plants with stubbles.
- ❖ If diseased plants are observed in the fields then avoid ratooning of crop.
- ❖ Sowing of cane after dipping the sets in any recommended fungicide solution.

WHIP SMUT MANAGEMENT

- ❖ Cut and remove the diseased plants from the field.

ECONOMIC THRESHOLD LEVELS (ETLs) OF SUGARCANE PESTS

INSECT PESTS	ECONOMIC THRESHOLD LEVEL
Borers	10% infested canes.
Pyrilla	3 per leaf.
Whitefly	10 per Leaf up to August
Black bug	10 per sheath.
Toka	3 per sweep
Mites	10 per Leaf/ Visible damage symptom
Mealy bug	Only presence
Termites	10% damage
Rodents	5 live burrows per acre
Diseases	Only presence